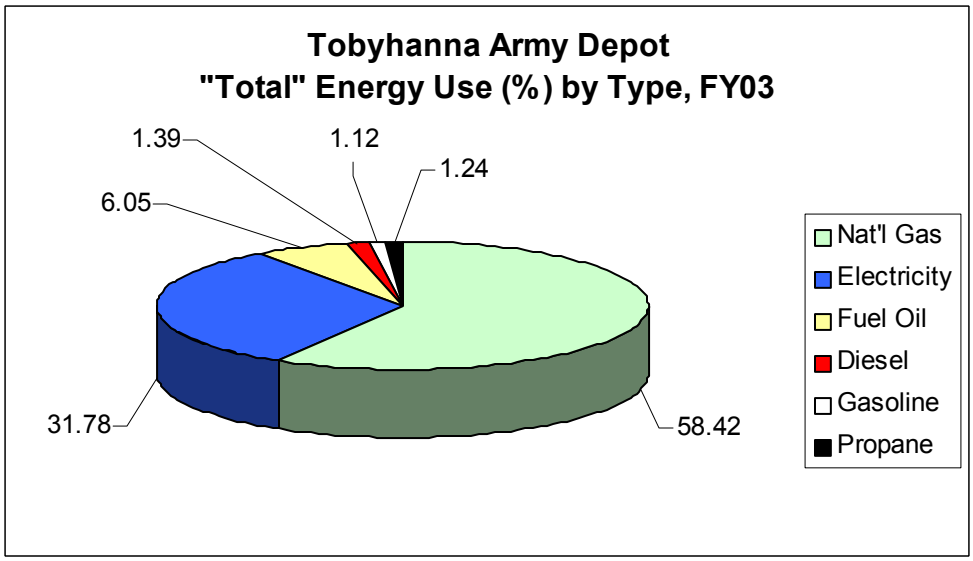
Energy Conservation Program

Tobyhanna Army Depot has a proactive Energy Program which strives to meet its annual energy goals. These goals are parts of a twenty-year Department of Defense energy reduction plan from FY85 - FY05 and a new twenty-five year plan from FY85 - FY10. The ultimate goal for the depot, in accordance with the Executive Order 13123 of 1999, is to reduce "facilities" energy (i.e., btu's from natural gas, electricity, and fuel oil) by 30%, FY 85-FY 2005 and by 35% by 2010 relative to 1985. With respect to the "mobility" energy component (gasoline), the goal was a 5% reduction during the period FY 85-FY 95. Reporting of a "process" component by the depot was discontinued in FY92 by AMC. To allow for installation growth, the facilities goal is normalized with respect to energized building area, and expressed as Mbtu/ksq.ft.

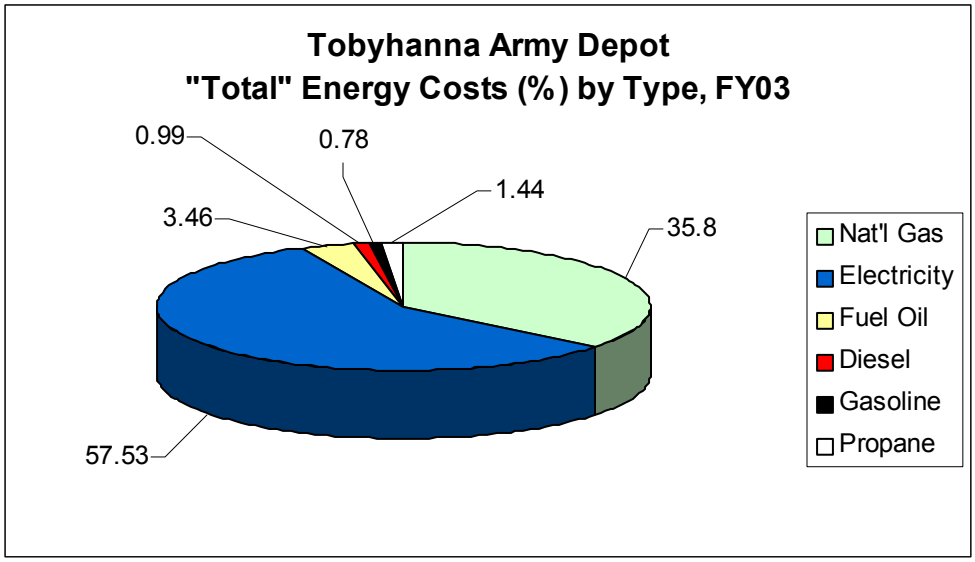


The aim of the depot energy program is to reduce energy consumption by promoting energy conservation, the construction of new facilities which are energy efficient, promoting energy improvements, and development/research of new technologies or programs (such as Energy Savings Performance Contracts (ESPC)). Specific ways in which the depot is striving to achieve reductions include:

TYAD entered into an ESPC with HEC Inc. worth $32 million dollars. It will safeguard the depot's mission by providing reliable heat and process steam, and efficient lighting. It achieved substantial reductions in energy consumption (42%), water usage (20%), and air emissions (60%) to ensure the depot's compliance with Executive Order 13123.

The project replaced an aging, central coal-fired heating plant with decentralized natural gas heat and upgraded inefficient lighting throughout the depot's industrial zone. It also

included an Energy Monitoring Control System to optimize heating, ventilation, and air conditioning systems.



The high-efficiency decentralized heating system has three major components: installation of decentralized boiler plants, construction of the natural gas pipeline, and modifications to existent heating systems (i.e., installation of air-rotation units for heating the general purpose warehouse bays.)

Inspection and repair/replacement of steam traps at selected buildings was recently completed. This will also help maximize condensate returned to the decentralized boilers.

The electric submeter readings (approximately 135), and the natural gas meters (21) are monitored monthly to enable Environmental Management Division (EMD) and users to spot irregular consumption.

Technical review for energy considerations at the various design stages of Facilities Engineering Projects and Major Construction, Army building projects (high efficiency lighting and motors, insulation, etc.).

Periodic reminders to conserve energy via tips published in the Reporter (such as the article on turning out unneeded lights and equipment) or broadcast on the public address system. These usually remind employees of the impact energy conservation can have on the Net Operating Result and their own possible monetary award.

Energy walk-through inspections performed by the EMD at different building locations, on a monthly basis. During the last building inspection, for example, there was only one major energy deficiency (faulty photosensors for exterior lighting at a few locations).

However, such deficiencies as missing door sweeps, leaky faucets, unlighted vacant areas, etc. are found. EMD will call in work order requests for repair, or issue memoranda requesting correction of procedures/behavior.

EMD performs night-time inspection to determine if there are work centers using lights, computers, or other equipment that should have been turned off. These are done 2 or 3 times per year with emphasis during the heating season when the clocks have been set back for the winter. EMD then requests the Directorate of Public Works to reset any erroneous time-of-day On/Off controls.

EMD created an E-Mail group comprised of the Building Coordinators. This is used for mailings of energy conservation tips, and to remind coordinators to perform periodic inspections of their work centers.